

REMARKS

This Application has been reviewed in light of the February 26, 2010 Office Action. At the time of the Office Action, Claims 1-17 and 19-21 were pending. Claims 1-17 and 20-21 were rejected, and dependent Claim 19 was objected to. Claims 1, 6, 11, 14-17, and 19-21 are herein amended, and new Claims 22-30 are added. Claim 18 was previously cancelled. Applicants respectfully request reconsideration and allowance of all pending claims.

Rejections under 35 U.S.C. § 112, second paragraph (indefiniteness)

Claims 14-17 and 20-21 were rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants have amended Claims 14-17 and 20-21. Applicants believe these amendments render the rejections 35 U.S.C. §112, second paragraph moot. Accordingly, Applicants respectfully request that these rejections be withdrawn.

New Claims 22-30 are Allowable.

Applicants appreciate the Examiner's consideration and indication that dependent Claim 19 includes allowable subject matter. Accordingly, Applicants have added new independent method Claim 22 to capture the allowable subject matter of dependent Claim 19. Thus, Applicants request allowance of new Claim 22, as well as new dependent Claims 23-30 that depend from Claim 22.

Amended Independent Claim 1 is Allowable.

Claim 1 remains rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 7,017,841 ("*Tirschler*"). *Tirschler* teaches a basic process of detecting a frozen charge in a tube mill and stopping the mill so that the charge can be manually removed from internal wall of the mill. The Examiner argues that this process meets the limitations of Claim 1 as previously presented. Although Applicants do necessarily agree with the Examiner's interpretation, in order to advance prosecution, Applicants have amended Claim 1 to recite "varying the speed of rotation of the grinding pipe by the drive device such that *the varied rotational speed causes the frozen charge to detach from the inner wall of the grinding pipe.*"

This amended language of Claim 1 is now clearly distinguished from *Tirschler's* process of stopping the mill to manually remove the charge from the mill wall. Specifically, in *Tirschler's* process, the process of stopping the rotation of the mill does not *cause the frozen charge to detach from the inner wall of the mill.*

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "the identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Tirschler does not teach "each an every element" of amended Claim 1, and thus cannot anticipate amended Claim 1. Therefore, Applicants respectfully request allowance of amended Claim 1, as well as all claims that depend from Claim 1.

Amended Independent Claims 11 and 14 are Allowable.

Independent Claims 11 and 14 are rejected under 35 U.S.C. §102(b) as being anticipated by each of:

(a) *Tirschler*, (b) U.S. Patent No. 4,576,572 ("*Mueller*"), and (c) U.S. Patent No. 5,203,359 ("*Fesmire*").

The Examiner argued that the only positively recited limitation in independent Claims 11 and 14 (as previously presented) was a control device for a drum that oscillates the drum. (Office Action, pages 2-3). Although Applicants do not necessarily agree, in order to advance prosecution, Applicants have amended Claims 11 and 14 to positively recite a control device for controlling a drive device for a grinding pipe, the control device including:

means for defining an operating cycle for the grinding pipe, the operating cycle defining oscillations in the angle of rotation of the grinding pipe about at least one predetermined angle of rotation offset from a resting position of the grinding pipe; and

means for controlling the drive device according to the defined operating cycle such that the drive device oscillates the angle of rotation of the grinding pipe about the least one predetermined angle of rotation.

These limitations are supported, for example, at paragraphs 0038-0039 of Applicants' published application (US 2008/0169368):

[0038] It is possible for the grinding pipe 1 to oscillate about one or more positive angles of rotation φ_1 . It is also possible for the grinding pipe 1 to oscillate about one or more negative angles of rotation φ_2 . The grinding pipe 1 can also be set to oscillate about one or more positive and about one or more negative angles of rotation φ_1 and φ_2 .

[0039] The control device 3 shown in FIG. 1 for the drive device 2 preferably has means for defining an operating cycle for the grinding pipe 1 in order to control or regulate the movement of the grinding pipe 1 as described above.

These new limitations of Claims 11 and 14 copied above do not merely recite the intended use of the control device. Instead, the limitations *positively recite* a means for defining an operating cycle that defines oscillations in the angle of rotation of the grinding pipe about predetermined angle(s) of rotation, and a means for controlling the drive device according to the defined operating cycle such that the drive device oscillates the grinding pipe about the predetermined angle(s) of rotation. Accordingly, Applicants submit that these limitations carry patentable weight.

Tirschler, *Mueller*, and *Fesmire* all fail to teach these limitations of Claims 11 and 14. The Examiner points out that *Mueller* and *Fesmire* each teach oscillating a drum. However, both *Mueller* and *Fesmire* only teach oscillating the drum about the resting position of the drum. Specifically, *Mueller* teaches "The drum 12 **oscillates over a predetermined arc centered on axis 14**, which may be about 110 degrees or 55 degrees either way off vertical." (col. 5, lines 55-58) (emphasis added). And *Fesmire* teaches "During a washing cycle, the drum is driven to **oscillate or rotate about the axis** in opposite directions through an angular range of approximately 180° or 270° at a suitable speed range of, for example, 10 to 20 RPM." (col. 9, lines 40-44) (emphasis added). Neither *Mueller* nor *Fesmire* teaches oscillation about an angle that is **offset from the drum's resting position**, *i.e.*, the vertical. Further, *Tirschler* also does not teach oscillating a drum about an angle that is **offset from the drum's resting position**, as recited in amended Claims 11 and 14.

For at least these reasons, Applicants respectfully request reconsideration and allowance of amended Claims 11 and 14, as well as all claims that depend therefrom.

All Dependent Claims are Allowable.

Dependent Claims 12-13 and 20-21 were rejected under 35 U.S.C. §102(b) as being anticipated by *Mueller*.

Dependent Claims 12-13 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by *Fesmire*.

Dependent Claims 2, 4-5, 7-9, 12-13, and 15 were rejected under 35 U.S.C. §102(b) as being anticipated *Tirschler*.

Dependent Claims 16-17 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Fesmire*.

Dependent Claims 3, 6, 10 and 16-17 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Tirschler*.

The rejected claims are allowable at least because they depend from independent Claims 1, 11, or 14, all of which are shown above to be allowable. Thus, Applicants respectfully request allowance of all dependent claims.

CONCLUSION

Applicants have made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicants respectfully request reconsideration of the pending claims.

Applicants believe there are no fees due at this time. However, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871 of King & Spalding L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512-457-2030.

Respectfully submitted,
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